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Animal Advocacy and Commercial Agriculture in the U.S.: An Overview Including the Economic Context

by

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I. Introduction:

Animals have long served and continue to serve humans as religious icons, companions, stores of value, instruments of recreational pleasure, sources of knowledge, and modes of transportation, in addition to providing humans with raw material for clothing, footwear, and food. Historically, the use of animals by humans has been tempered by a sense of stewardship and prohibitions against cruelty. Later, concerns about animal welfare emerged; followed by espousal of animal rights and zero-based animal use.

The commercial livestock-animal advocacy debate in the U.S. encompasses both management techniques and production systems. Examples of controversial management techniques include tail docking of hogs, debeaking of chickens, and hot branding of cattle. Examples of controversial production systems include veal calf production, beef feedlots, and battery cages for laying hens. Producers argue that these modern commercial livestock production practices prevent disease, protect against predators, and lower the cost of livestock products to consumers. Some animal advocates argue that modern livestock production induces unnecessary stress; other advocates argue that it reduces an animal's contentment; while still others argue that domestication violates an animal's natural rights.

This article focuses on the larger conceptual framework within which the commercial livestock-animal advocacy debate occurs, rather than on specific management techniques and production systems. The reason for this focus are twofold. First, the larger picture is often overlooked in the (often emotional) debate over specific practices. Secondly, many of the assertions of animal advocates are hypotheses which have not been rigorously tested and

verified. Likewise, many of the arguments of commercial agriculture also become hypotheses when viewed from the context of animal well-being instead of from the context of production and economic efficiency.

The first part of this article is based on the observation that animal advocacy is a continuum of views and beliefs. Many categorizations of this continuum are possible. While philosophy has played a central role in defining the debate on the relationship between human and non-human animals, this article concludes with implications for public policy. Thus, categories of animal advocacy are defined from a public policy perspective. Next, the key role of technology in the commercial livestock-animal advocacy debate is discussed, followed by discussion of the economic context and potential policy implications.

II. Animal Cruelty

Historically, killing animals with cruelty or malicious intent has been forbidden. An example of this prohibition is the Humane Slaughter Act of 1958, which establishes federal guidelines for the slaughter of livestock. Specifically, it requires that animals be stunned before slaughter to avoid the pain of the cut and anxiety associated with a slow death.

III. Animal Welfare

The predecessor of the current animal welfare movement emerged during the 19th century as a result of concern about the humane care of animals used in production, companionship, recreation, and research. A key concept was the avoidance of suffering. Most producers, veterinarians, and biomedical researchers believe that humans should not

inflict suffering on an animal during the animal's life, not just at the animal's death. Of course, disagreements arise concerning the meaning of the word suffer.

With passage of the Animal Transportation Acts of 1873 and 1906, the U.S. Government acknowledged that there is the potential for animal suffering under certain conditions. These laws specify mandatory feed, water, and rest requirements for animals confined in transit longer than 38 hours. More recently, the Animal Welfare Act of 1966 and its amendments, the Health Research Extension Act of 1985, and the Food Security Act of 1985 mandate federal standards for and inspection of the care, handling, and transportation of laboratory animals.

IV. Animal Rights

Animal rights advocates believe that animals possess rights which extend beyond the avoidance of suffering, and some believe that animals possess rights which are equivalent to those possessed by humans. Stated with some simplicity, the animal rights movement raises concerns related to the contentment of animals. To illustrate their more wide-ranging concerns, compared with those of animal welfare advocates, a modern confinement practice may not induce stress and suffering, but by inhibiting natural behavior may potentially lower the animal's well-being. Animal rights advocates would not necessarily prohibit the use of animals by humans, although some would permit their use only as companions.

V. Zero-Based Animal Use[1]

Advocates of zero-based animal use would outlaw any use of animals by humans, including their use as companions. An important foundation for this position is the argument that placing an animal in an unnatural environment is a violation of the animal's inherent moral rights. Farm groups often associate the concept of zero-based animal use with all animal advocates; but this position is actually at one end of a continuum, with the prohibitions against animal cruelty at the other end.

VI. Role of Technology in the Commercial Livestock-Animal Advocacy Debate

Technological change is an important factor in the animal advocacy debate concerning commercial livestock production. Most importantly, scientific advances in understanding genetics and breeding have allowed selection of domesticated animals for certain desirable characteristics, such as size, physical features, behavior patterns, and productivity. Producers also have used advances in construction materials and design, environmental control technology, and medicines to create artificial environments for domesticated animals. A consequence of these two interrelated technology trends is that domesticated animals have lost many of the instinctive and physical traits which their prototypical ancestors possessed for survival.

Producers argue that technological advances have reduced the stresses which animals experience, such as predators and diseases. On the other hand, animal advocates assert that commercial livestock production practices cause excessive stress and suffering and lower the

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[1]This category was suggested by Dr. Margaret Snyder, Training Specialist - lab animal care, The Ohio State University.

animal's contentment, for example, by inhibiting natural behavior, and/or that domestication infringes on an animal's natural rights. These positions generate the following policy issue: Where should animal well-being be defined on the continuum of animal advocacy?

Technology and Evaluation of Animal Well-Being

Mostly through personal experience, producers, veterinarians, and humane societies have learned to monitor animal well-being by visual observation of injury, uncharacteristic behavior, neglect, or inappropriate environmental conditions. Uncharacteristic behavior includes lack of appetite, nervousness, lethargy, inability to carry out innate behavior, attacks on handlers or on other animals, and an abnormal amount of time spent in stereotypy (a repeated, relatively invariate sequence of movements having no obvious purpose).

Visual observation may not be definitive enough to evaluate many issues raised by animal advocates. Instead, technology-based measures may be needed. For example, one potential set of technology-based measures would use physical examination procedures, such as tissue samples and tests of body fluids, to evaluate adrenal and biochemical responses for indication of stress and, therefore, of well-being. There is increasing interest among the scientific community in developing technology-based measures, but such measures are controversial. Areas of controversy include effectiveness and reliability of the measurement technique, relationship between a given measure and animal well-being, and even the need for such measurement techniques. Nevertheless, a policy issue is: Should government fund research to develop technology-based measures of animal well-being?

Technology and Income

Technological change is an important engine for economic growth. Economic growth generates higher per-capita income, which in turn results in a smaller share of income being spent on food (Engel's law). For example, the share of expenditures devoted to food in the U.S. has declined from 27.2 percent in 1947 to 15.4 percent in 1989. In addition, because demand for processing, packaging, and other services increases as income increases, the share of expenditures accounted for by the value of domestic farm production consumed in the U.S. has declined even more rapidly: from 11.7 percent in 1947 to 3.0 percent in 1989.

As share of income devoted to food declines, individuals can spend their increasing share of discretionary income on other uses, including the support of animal advocacy. Furthermore, because a decreasing share of expenditures is accounted for by the value of farm production, concern that restrictions on commercial livestock production may increase the cost of food is likely to diminish.

VI. Economic Context of Commercial Livestock-Animal Advocacy Debate in the U.S.

Consistent with the general orientation of a market economy, the pursuit of private profits is an underlying motive of U.S. livestock producers. A primary strategy of livestock producers for generating higher profits is the adoption of new production technologies and management techniques that lower the cost of production. Because production of livestock in the U.S. generally occurs in a competitive market, livestock producers can not control the price they receive. Thus, as more producers adopt a cost-reducing production practice, price of their output will decline to meet the lower cost of production. Hence, consumers

ultimately benefit by paying a lower price for livestock products. An example of consumers benefiting from the interrelated effects of improved genetics and new production and management practices (such as confinement housing and antibiotics in feed) is the decline in the real price which producers receive for broilers: from 57 cents per pound in 1960 to 25 cents in 1990 (prices deflated by Consumer Price Index and expressed in 1982-84 dollars).

Production and economic efficiency in commercial livestock production is partly dependent on minimizing animal stress and suffering. While animals can adapt to stress to some extent, extreme stress may result in increased incidence of injury, disease, and mortality, as well as decreased reproductive prolificacy. Therefore, given the pursuit of private profit, producers as a group are unlikely to use production practices which cause stress and suffering resulting in economic losses.

Given the current economic system, producers will adopt a more humane production practice if it generates greater profit. In contrast, a more humane practice which results in lower profit is unlikely to be adopted. A third case involves a more humane practice with no significant effect on profit. In this case, producers likely will adopt the more humane practice only if humane treatment of animals is an explicit part of their objective function. While it is impossible to know how many practices fall into this third category, it is likely that, in raising public awareness of animal well-being, animal advocates have changed the objective function of at least some producers. The end result is the increased likelihood that humane production practices which have no significant influence on profit will be adopted.

A dilemma concerning production practices arises when it is recognized that modern medical technology can offset some of the effects of modern production technology. An

example is the addition of antibiotics to feed to control diseases associated with confinement. The use of technology to offset the effects of other technology suggests that in part, technology may be a zero-sum game when it comes to the well-being of commercial livestock.

The preceding discussion clearly argues that humane treatment of animals can be consistent with profitability. However, the primary focus of livestock producers is on the pursuit of private profits. In contrast, animal advocates argue that the well-being of animals has a public value that is at least as important as the pursuit of private profits, and some would argue that animal well-being has a greater public value.

Resolution of the relative importance of public values is assigned to the political system. Its resolution of the importance of animal well-being relative to the pursuit of private profits by livestock producers could result in restrictions on commercial livestock production. While these restrictions may achieve the desired level of animal well-being, they also may result in higher production costs. The resulting higher price and lower consumption of livestock products, plus the cost of implementing government regulation, would be viewed as a politically acceptable trade-off to achieve the desired public value of enhanced well-being of commercial livestock. In this situation, society in essence decides that animal well-being is an externality whose value is not priced appropriately by the private market. Thus, from a policy perspective, animal well-being becomes analogous to other "good husbandry" issues, such as soil conservation and avoidance of pollution. Society has already decided that these externalities are worthy of government intervention even though higher prices for private market goods generally result.

VIII. Conclusions and Policy Implications

Animal advocacy is a continuum that ranges from prohibition against animal cruelty at one end to no use of animals for any purpose at the other end. Livestock producers tend to view animal advocacy in terms of the health and safety of the animal within the context of pursuing private profit. Some animal advocates suggest that animal well-being is a public value which is more important, or at least as important, as the pursuit of private profit. Thus, the public policy issue is where to draw the line between the pursuit of private profit and animal well-being. The right of the public to draw this line has been well established by prior laws addressing cruelty toward and welfare of commercial livestock.

In the short term, the public policy response is likely to be (1) the commissioning of studies and (2) increasing funding for research and public education. These are traditional responses when information is minimal. It is reasonable to assume that some of the increased funding will be directed toward developing and testing technology-based measures of animal well-being.

The increased political attention to animal well-being also is likely to increase the importance which researchers assign to animal well-being in evaluating both new and existing livestock practices. Public policy may decide to reinforce/encourage this trend by requiring that an objective of all research on commercial livestock practices be the assessment of their effects on animal well-being, and that such information be disseminated to producers.

In addressing the eventual resolution of the public policy issue concerning the definition of acceptable well-being of commercial livestock, it is important to note that some, perhaps many, potential legislative provisions may not translate into less efficient livestock production. The offsetting effects of technology, currently existing humane practices which

have not been adopted because they have no significant effect on private profit, and new livestock production practices designed to account for animal well-being could increase, or at least not impair, the current efficiency of commercial livestock production.

Assuming that at least some legislated provisions would increase livestock production costs, and given that livestock production occurs in a competitive market, the higher cost will eventually be passed on to consumers in the form of higher prices. Thus, in the case of animal advocacy, the political system may decide to redirect to the enhancement of animal well-being some of the benefits which consumers have received from production practices that lower the cost of production. In other words, government may decide to transfer economic wealth from consumers to animals.

While wealth can be redirected from consumers to animals, it is important for animal advocates not to significantly impair the efficiency of the animal production system. A significant decline in consumer well-being could result, which would likely limit consumer willingness to support animal well-being. In short, the efficiency of commercial livestock production and public appropriation of that efficiency for animal well-being are equilibrating forces.

For producers as a group, the only long-term loss from restrictions on livestock production is the potentially lower consumption, hence lower production, resulting from higher costs. This loss is probably minimal, given the inelastic demand for livestock products. However, individual producers could be major losers, and producers as a group are likely to suffer losses during the [illegible] implementation of restrictions which cause higher costs. These losses result from the inability to immediately raise prices to offset the higher costs.

Consequently, transitory public assistance could be provided to producers in general or targeted to producers with low profit margins--in particular, smaller producers.

In conclusion, from an economic perspective, a reasonable guess as to the resolution of the current animal advocacy debate concerning commercial livestock production is increased government regulation, so as to insure greater animal well-being, without eliminating major livestock production techniques and practices. Reinforcing the economic-based argument is the fact that most citizens relate to animals as pets. Thus, they implicitly support the idea that the presence of humans is a right of domesticated animals. A caveat is that the commercial livestock industry must demonstrate a good faith effort toward its own animal advocacy. This may necessitate the establishment of self-policing procedures, with animal advocates serving on advisory boards.